

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION **2811**

Inventor(s): MANABE et al.

Appln. No.: 09

783,035

Series Code \uparrow Serial No. \uparrow

Filed: February 15, 2001

Hon. Commissioner of Patents
Washington, D.C. 20231

Group Art Unit 2811

Examiner: Tran, M.

Atty. Dkt. P 276665

F199-156-USDIV

Appln. Title: LIGHT-EMITTING SEMICONDUCTOR
DEVICE USING GROUP III NITRIDE
COMPOUND

Sir:

REPLY/AMENDMENT/LETTER

Date: July 3, 2001

This is a reply/amendment/letter in the above-identified application and includes the herewith attachment of same date and subject which is incorporated hereinto by reference and the signature below is treated as the signature to the attachment in absence of a signature thereto.

FEE REQUIREMENTS FOR CLAIMS AS AMENDED

| | | | | | | | |
|---|--|---|------------------------------------|---------------|--------------------|-----------------|----------------|
| 1. Small Entity claim A. <input checked="" type="checkbox"/> NOT made B. <input type="checkbox"/> Withdrawn C. <input type="checkbox"/> made herewith D. <input type="checkbox"/> made previously For B & C See Required Separate Paper (Pat-256) | | Claims remaining after amendment | Highest number previously paid for | Present Extra | Large/Small Entity | Additional Fee | Fee Code Lg/Sm |
| 2. Total Effective Claims | | 3 | **minus 20 | 0 | x \$18/\$9 = | + \$0 | 103/203 |
| 3. Independent Claims | | 2 | ***minus 3 | 0 | x \$80/\$40 = | + \$0 | 102/202 |
| 4. If amendment enters proper multiple dependent claim(s) into this application for first time (leave blank if this is a reissue application) | | | | | add | + \$270/\$135 = | + \$0 104/204 |
| 5. Original due Date: | | <input checked="" type="checkbox"/> NONE | | | | | |
| 6. Petition is hereby made to extend the original due date to cover the date this response is filed for which the requisite fee is attached | | (1 mo) | \$110/\$55 = | | | | 115/215 |
| | | (2 mos) | \$390/\$195 = | | + \$0 | | 116/216 |
| | | (3 mos) | \$890/\$445 = | | | | 117/217 |
| | | (Usable only for \leq 2mo.OA --- 4 mos) | \$1390/\$695= | | | | 118/218 |
| | | (Usable only for 30 day/1mo.OA --- 5 mos) | \$1890/\$945= | | | | 128/228 |
| 7. Enter any previous extension fee paid since above original due date and subtract | | | | | - \$0 | | |
| 8. Extension Fee Attached | | | | | + \$0 | | |
| 9. If Terminal Disclaimer attached, add Rule 20(d) official fee | | | | | + \$110/\$55 | + \$0 | 148/248 |
| 10. If IDS attached requires Official Fee under Rule 97 (c), | | | | | + \$180 | + \$0 | 126 |
| or if Rule 97(d) Request | | | | | + \$180 | | 126 |
| 11. After-Final Request Fee per rules 129(a) and 17(r) | | | | | + \$710/355 | + \$0 | 146/246 |
| 12. No. of additional inventions for examination per Rule 129(b)..... | | | | | x \$710/355 ea | + \$0 | 149/249 |
| 13. Request for Continued Examination (RCE) | | | | | + \$710/355 | + \$0 | 1179/1279 |
| 14. Petition fee for | | | | | + \$0 | | |
| 15. TOTAL FEE ENCLOSED = | | | | | \$0 | | |

16. *If the entry in this space is less than entry in next space, the "Present Extra" result is "0".

17. **If the "Highest number previously paid for" in this space is less than 20, write "20" in this space.

18. ***If the "Highest number previously paid for" in this space is less than 3, write "3" in this space.

Our Deposit Account No. 03-3975)

(Our Order No. 031317

C#

M#

CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficiencies only) now or hereafter relative to this application and the resulting Official Document under Rule 20, or credit any overpayment, to our Accounting/Order Nos. shown above, for which purpose a duplicate copy of this sheet is attached.

This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is filed.

Query: Is appeal deadline now? If so, file Notice of Appeals separately.

Pillsbury Winthrop LLP
Intellectual Property Group

1600 Tysons Boulevard

By Atty: Gregory P. Brummett

Reg. No. 41646

McLean, VA 22102

Sig: *G. Brummett*

Fax: (703) 905-2500

Tel: (703) 905-2000

Tel: (703) 905-2024

Atty/Sec: GPB/gpb

NOTE: File this cover sheet in duplicate with PTO receipt (PAT-103A) and attachments

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of

MANABE et al.

Application No. 09/783,035

Filed: February 15, 2001

Title: LIGHT-EMITTING SEMICONDUCTOR
DEVICE USING GROUP III NITRIDE COMPOUND



Group Art Unit: 2811

Examiner: M. Tran

#5
PreAmend
Ruseel
7/18/01

* * * * *

July 3, 2001

THIRD PRELIMINARY AMENDMENT

Hon. Commissioner of Patents
Washington, D.C.

Dear Sir:

Prior to the examination, please amend the above-identified application as follows:

IN THE CLAIMS:

Please add the following new claim:

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JUL 10 2001
TECHNICAL CENTER 2600

18. (new) A semiconductor light emitting device comprising:

an n-type clad layer consisting of a gallium nitride based compound semiconductor;

an active layer consisting of a gallium nitride based compound semiconductor, said active layer being made from a material having a band gap energy smaller than that of said n-type clad layer;

a p-type clad layer consisting of a gallium nitride based compound semiconductor, said p-type clad layer being made from a material having a band gap energy greater than that of said active layer, and sandwiching said active layer accompanying with said n-type clad layer,

21 concluded
wherein said materials of said n-type clad layer and said p-type clad layer are selected so as to make a band gap energy of said n-type clad layer smaller than the band gap energy of said p-type clad layer.
